History of illness prior to a diagnosis of Bipolar Disorder or Schizoaffective Disorder


1 Alfred Psychiatry Research Centre, The Alfred and Monash University, School of Psychology, Psychiatry & Psychological Medicine, Commercial Road, Melbourne, 3004, Australia
2 Department of Clinical and Biomedical Sciences: Barwon Health, The University of Melbourne, P.O. Box 281, Geelong, Victoria 3220
3 Eli Lilly Australia Pty Ltd, 112 Wharf Road, West Ryde NSW 2114, Australia
4 School of Applied Social and Human Sciences, University of Western Sydney, Penrith South NSW 2750, Australia

Illness time-course in an ideal world

- Early detection of illness
  - Treatment commences when symptoms first appear
- Accurate diagnosis
- Algorithm appropriate treatments initiated
Early detection and treatment

- Early detection and treatment may prevent a more severe and chronic course of illness
  - A long interval between the onset of bipolar illness and commencement of lithium prophylaxis is associated with poor prognosis [1]
  - Lithium response is greater in individuals who have had fewer episodes [2]
  - Psychotherapy may be more effective in individuals earlier in their illness course [3]

Early detection and treatment

- Various factors combine to prevent early treatment
  - Mental health services may have a triage threshold that excludes milder and earlier presentations of illness, and often focus on crisis response rather than long term illness management [1]
  - Pathways to care vary considerably between nations and can even vary at a local level. However, many of the problems of misdiagnosis, underdiagnosis and inadequate treatment of bipolar disorder reoccur across the various service models [1]


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Early detection and treatment

- Accurate diagnosis for bipolar and schizoaffective disorders is difficult early in these illnesses
  - Patients with bipolar disorder often first present during a depressive episode and may be diagnosed with MDD and treated with antidepressant monotherapy
  - Patients with schizoaffective disorder may first present during a mood or psychotic episode and the other symptoms of their illness may not be recognised
Bipolar disorder: unrecognised and underdiagnosed

MDQ positive rates (US population)

<table>
<thead>
<tr>
<th>Prevalence of bipolar I and II disorder(^a)</th>
<th>3.4(^b)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Correctly diagnosed by a research doctor as having bipolar disorder</td>
<td>20%</td>
</tr>
<tr>
<td>Incorrectly diagnosed as unipolar depression</td>
<td>31%</td>
</tr>
<tr>
<td>Unrecognised and undiagnosed</td>
<td>49%</td>
</tr>
</tbody>
</table>

\(^a\)Weighted to match national demographics
\(^b\)When adjusted for frequency of bipolar disorder in non-responders, the prevalence rate increased to 3.7%

MDQ = Mood disorder questionnaire


Geelong region

- Diagnosis using the SCID of 1066 women recruited randomly from the electoral role
  - 9 women were found to have bipolar I disorder, of which 6 had a previous diagnosis of bipolar disorder, 2 had a previous diagnosis of MDD or “depression” and 1 had no previous diagnosis
  - 11 women were found to have bipolar II disorder, of which 4 had a previous diagnosis of bipolar disorder, 2 had a previous diagnosis of MDD or “depression”, 2 had a previous diagnosis of post-natal depression and 3 had no previous diagnosis
  - 3 women were found to have bipolar disorder NOS, of which 2 had a previous diagnosis of “depression” and 1 had no previous diagnosis

(Unpublished data)
2-year observational study of 240 participants
- 218 participants answered the questionnaire
- 163 bipolar disorder, 55 schizoaffective disorder, 125 female, 93 male, age 41.8 ± 12.7 years.
- 2 sites – Alfred Psychiatry Research Centre, Melbourne and Barwon Psychiatric Research Unit, Geelong
- Data collected by face-to-face interview at a series of 9 interviews by trained clinical staff

Bipolar Comprehensive Outcomes Study
- History of illness questionnaire administered by study clinicians to BCOS participants at interview
  - History of illness prior to enrolling in BCOS
- 10 questions
  - Q.1-8 probed key events in the progression of illness
  - Q.9 previous diagnoses
  - Q.10 previous medications
Onset of illness timeline

- Mood swings & symptoms of depression (18.0)
- Full episode of depression (21.2)
- Full episode of mania (24.1)
- Diagnosis of bipolar or schizoaffective disorder (30.0)

- Any symptoms of mental illness (17.5)
- Symptoms of mania (21.0)
- Medical treatment (24)

Age, (Median)

Berk et al. (2007) *J Affect Disord* 103: 181-186
Delay from first experiencing any symptoms of mental illness to diagnosis

Berk et al. (2007) *J Affect Disord* 103: 181-186

Age of onset predicts initial polarity

- Early AAO – More likely to experience depressive first episode (72%)
- Intermediate AAO – More likely to experience manic first episode (55.5%)

Biffin et al, submitted to Bipolar Disorders
### Diagnoses prior to commencing the BCOS study

<table>
<thead>
<tr>
<th>Prior diagnosis</th>
<th>Number of participants</th>
<th>Duration diagnosis was retained (years ± SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression</td>
<td>58</td>
<td>7.6 ± 8.7</td>
</tr>
<tr>
<td>Schizophrenia</td>
<td>27</td>
<td>8.6 ±6.5</td>
</tr>
<tr>
<td>Bipolar disorder</td>
<td>13</td>
<td>5.2 ± 4.6</td>
</tr>
<tr>
<td>Postnatal depression or psychosis</td>
<td>12</td>
<td>3.2 ± 4.1</td>
</tr>
<tr>
<td>Schizoaffective disorder</td>
<td>7</td>
<td>4.5 ± 3.0</td>
</tr>
<tr>
<td>Borderline personality disorder</td>
<td>6</td>
<td>5.8 ± 5.6</td>
</tr>
</tbody>
</table>

### Treatment exposures prior to final diagnosis
(Exposure reported by 121 of 218 BCOS participants)

<table>
<thead>
<tr>
<th>Treatment category</th>
<th>Number of exposures</th>
<th>Duration diagnosis was retained (years ± SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSRIs</td>
<td>50</td>
<td>1.8 ± 2.6</td>
</tr>
<tr>
<td>TCAs</td>
<td>25</td>
<td>2.1 ± 2.8</td>
</tr>
<tr>
<td>MAOIs</td>
<td>9</td>
<td>1.2 ± 0.9</td>
</tr>
<tr>
<td>Other ADs</td>
<td>13</td>
<td>1.0 ± 0.9</td>
</tr>
<tr>
<td>AD (not known)</td>
<td>20</td>
<td>5.7 ± 9.0</td>
</tr>
<tr>
<td>Typical antipsychotic</td>
<td>73</td>
<td>3.2 ± 3.7</td>
</tr>
<tr>
<td>Atypical antipsychotic</td>
<td>22</td>
<td>1.5 ± 2.0</td>
</tr>
<tr>
<td>Antipsychotic (NK)</td>
<td>5</td>
<td>0.6 ± 0.4</td>
</tr>
<tr>
<td>Benztropine</td>
<td>36</td>
<td>4.6 ± 7.4</td>
</tr>
<tr>
<td>Benzodiazepines</td>
<td>24</td>
<td>2.3 ± 2.7</td>
</tr>
<tr>
<td>Mood stabilisers</td>
<td>17</td>
<td>6.0 ± 9.3</td>
</tr>
<tr>
<td>Methylphenidate</td>
<td>1</td>
<td>0.8</td>
</tr>
<tr>
<td>ECT</td>
<td>4</td>
<td>1.8 ± 2.2</td>
</tr>
<tr>
<td>Medication</td>
<td>Adherent</td>
<td>Mostly adherent</td>
</tr>
<tr>
<td>---------------------</td>
<td>----------</td>
<td>-----------------</td>
</tr>
<tr>
<td>All classes</td>
<td>65%</td>
<td>21.8%</td>
</tr>
<tr>
<td>Benzodiazepines</td>
<td>88.5%</td>
<td>11.5%</td>
</tr>
<tr>
<td>Benztropine</td>
<td>81.8%</td>
<td>9.1%</td>
</tr>
<tr>
<td>Mood stabilisers</td>
<td>66.7%</td>
<td>13.3%</td>
</tr>
<tr>
<td>Antipsychotics</td>
<td>61.3%</td>
<td>24.3%</td>
</tr>
<tr>
<td>Antidepressants</td>
<td>61.1%</td>
<td>23.8%</td>
</tr>
</tbody>
</table>

**Limitations**

- Data was collected retrospectively
- Data was not checked against other sources (e.g. patient records)
- The findings demonstrate a considerable delay between onset and diagnosis in the past, not necessarily in current practice
- Issues of diagnostic stability versus misdiagnosis are not explored
Key findings

- Large delays exist between onset of illness, seeking medical treatment and final diagnosis
  - Longer delays for earlier age at onset
- Participants have had many previous diagnoses and medications
  - Predominantly compliant with treatment

Conclusion

- Significant improvements in the course and outcome of bipolar and schizoaffective disorders can be made by
  - Encouraging people with symptoms to seek help earlier
  - Earlier accurate diagnosis and algorithm appropriate treatment by clinicians
BCOS study team

- The Alfred Psychiatry Research Centre (APRC)
  Jayashri Kulkarni, Paul Fitzgerald, Anthony de Castella, Sacha Filia, Kate Filia, Frances Biffin

- Barwon Health, Geelong
  Michael Berk, Seetal Dodd, Lesley Berk

- Eli Lilly Australia
  Bill Montgomery, Katarina Kelin, Sibyl Masterman

- University of Western Sydney & Mental Health Association, NSW
  Meg Smith

- Intercontinental Information Sciences (ICIS)
  Alan Brnabic, Amanda Lowry